

REMARKS/ARGUMENTS

The claims have not been amended.

The rejection over Cavallotti and Barnes has been supplemented by the addition of Bianchi and Reinhard. This rejection is traversed.

The present inventors have discovered, surprisingly and unexpectedly, that, in the preparation of liquid formulations with a high concentration of imidoalkanepercarboxylic acids, for example at 10% by weight or more, in either the absence of surfactants or in the presence of anionic surfactants, starting with peracids in  $\alpha$  form and in the stage for conversion of the acid from the  $\alpha$  form to the  $\beta$  form, the viscosity of the preparations increases uncontrollably and the formulation converts from an aqueous dispersion to a mass of pasty consistency. See specification page 6, lines 12ff. As explained there, this pasty mass cannot be used as a liquid formulation and thereby take advantage of the bleaching and disinfecting uses of imidoalkanepercarboxylic acid dispersions. Upon further investigation, however, the inventors also surprisingly discovered that an aqueous dispersion comprising water, 7% to 40% of at least one imidoalkanepercarboxylic acid in the  $\beta$ -crystal form having the general formula (I) herein, and from 0.005% - 0.3% of a nonionic surfactant provides a dispersion that is useful as a liquid formulation and that has a viscosity of not more than 2000 mPa.sec at 25°C, a dissolution time that is not more than 5 minutes at 40°C or more than 15 minutes at 18°C, and a stable viscosity that does not vary by more than 300 mPa.sec at 40°C for seven days.

Cavallotti makes imidoalkanepercarboxylic acids and is interested in providing these acids with a relatively constant water content of 8-12% (page 2, lines 36-37, page 4, lines 55-57, page 5, lines 19-21). He found out that he can do this by melting an imidoalkanepercarboxylic acid in excess water, making a eutectic imidoalkanepercarboxylic acid/water mixture, and decanting. See, e.g., Examples 1-7 at page 5, lines 56ff.

“Sequestering substances” can be added, none of which are nonionic surfactants. See page 5, lines 10-15. Notably, the final product imidoalkanepercarboxylic acid only contains approximately 10% water, 90% imidoalkanepercarboxylic acid.

Certainly Cavallotti’s eutectic imidoalkanepercarboxylic acid/water mixture has nothing to do with the present invention, which is directed to a dispersion of 7% to 40% of at least one imidoalkanepercarboxylic acid in water. Moreover, his initial, non- eutectic mixture of imidoalkanepercarboxylic acid and water has no non-ionic surfactant present, nor is any suggested. Thus, Cavallotti falls squarely into the category of prior art described in the specification - imidoalkanepercarboxylic acids in water in either the absence of surfactants or in the presence of anionic surfactants,<sup>1</sup> whose viscosity would increase uncontrollably and convert from an aqueous dispersion to a mass of pasty consistency.

Recognizing the deficiency in Cavallotti, the Examiner has taken the position that it would have been obvious to add the nonionic surfactant of Barnes or Reinhardt to the Cavallotti “liquid formulation after the imidoalkane percarboxylic acids have been prepared and isolated by the procedure as taught by Cavallotti.” See page 13, lines 7-11 of the outstanding Official Action. Even if this were correct, which it is not, such addition would provide a composition with about 10% water, 88% imidoalkanepercarboxylic acid, and 1-2% nonionic surfactant.<sup>2</sup> Such a composition would not be a dispersion,<sup>3</sup> would not comprise 7% to 40% of at least one imidoalkanepercarboxylic acid in the  $\beta$ -crystal form having the general formula (I) herein, and would not comprise from 0.005% - 0.3% of a nonionic surfactant. Thus, even if there were motivation to add a nonioinic surfactant to the Cavallotti product and

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<sup>1</sup> Note that Cavallotti’s sequestering agents are carboxylic acids.

<sup>2</sup> See page 6, lines 5-6 of Barnes (2-50% surfactant) and col. 3, lines 54-57 of Reinhardt (1-50% surfactant)

<sup>3</sup> The Cavallotti product as isolated is a solid eutectic and has only about 10% water, see above.

reduce the amount thereof from that suggested by Barnes and Reinhardt to that presently claimed, the claimed dispersion would not be provided.

In addition to this, there is no reason one of ordinary skill in the art would modify Cavallotti by adding a nonionic surfactant. Adding a surfactant in the amount of Barnes or Reinhardt would render Cavallotti unsatisfactory for its intended purpose and change the principle of operation of the reference, as the surfactant would at a minimum hinder the separation of the eutectic composition from the water and make decantation more difficult if not impossible - decantation, Cavallotti's method for separating the eutectic mixture, depends on phase separation. See, e.g., page 6, top, of Cavallotti. Surfactants are used to homogenize disparate phases.

For these reasons the rejection over Cavallotti and Barnes as supplemented by Bianchi and Reinhard should be reconsidered and withdrawn.

Applicants traverse the double patenting rejections over U.S. 7,468,387 and application Serial No. 12/039,797.

Nothing in the claims of U.S. 7,468,387 (Bianchi) suggest an aqueous dispersion or a nonionic surfactant, as claimed herein. The fact that the claims of U.S. 7,468,387 and the claims pending herein may have one element in common is insufficient basis for a double patenting rejection. The claims herein must be obvious over the claims of the cited U.S. patent for double patenting to lie. Bianchi has not been applied against the claims above as establishing obviousness, but rather has been cited for technical support as describing alpha and beta forms of imidoalkanepercarboxylic acids. It thus should not be applied against the claims for double patenting for the same reasons.

With regard to application Serial No. 12/039,797, this application is clearly later-filed. According to MPEP 804 if a provisional nonstatutory obviousness-type double patenting rejection is the only rejection remaining in the earlier filed of the two pending applications

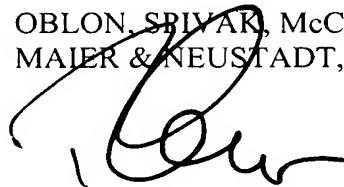
Application No. 10/585,659  
Reply to Office Action of July 12, 2010

the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer.

For the reasons stated above Applicants respectfully submit that this case is in condition for allowance. Early notification to this effect is earnestly solicited.

Respectfully submitted,

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